Fisheries Information System (FIS) Meeting Note
Thursday, November 20, 2003

The focus on Thursday shifted to preparing to break out in the afternoon into professional specialty groups.

FIS Technical Presentations
Mike Sestak, GSMFC
Gulf State Marine Fisheries Commission (GSMFC) FIN
(See presentation on FIS website)

Mike Sestak gave an overview of the GSMFC FIN; discussed problems encountered in the development of the FIN; and discussed data loading, storage and transfer between FIN and FIS.

The FIN layout includes:

- RECFIN – Reconcile Data Layer
  - This is the "meat" of the system
- INFFIN – Information Data Layer
  - Data is derived from RECFIN tables
- SUNFIN – Backup Data Layer
  - Completely separate
  - Updated from RECFIN and INFFIN
  - Can swap and recreate the data and tables in RECFIN and INFFIN

Primary catch and effort data from dealer reports are currently being captured in the system, and detailed catch and effort data will be captured from the states in the near future.

Some of the problems and changes include:

- Different nomenclature (for terms)
  - CT vs. CN
- Partners nomenclature – need to have the same definitions of terms. For example:
  - What is a trip in FIS vs. FIN?
    - Trip – When the fisherman leaves the dock and return? Or when the fisherman has just landed?
  - What is a landing?
    - Landing – When the boat docks? Or where the fish is sold?
- Multiple trips per single dealer report
- Multiple days at sea
- Landings:
  - For example, a Florida fisherman leaves Florida to go fishing; docks in Louisiana and sells his fish to a dealer in Mississippi. Which state is responsible to collect the information?
- State historical data is incomplete.
- Data reload

    - When we receive state's data, if there is an error in the data, we return the data to the state to correct. We do not update the state's data. Then, we reload it in the system.
- Data updates
    - We receive updates at any time.
    - Data from states to FIN to FIS
- User permissions
    - Users need to be educated – maybe through an 800 number
    - GIGO – Garbage In, Garbage Out
        - A data entry person enters into the system that shrimp is caught on a hook and line – they don't know otherwise. Someone looks at the data and ridicules the system.
        - When incorrect data is put in system, we need a way to ensure the data are correct.
    - Web Forms – Keep simple
    - Metadata issues with enforcements - Enforcement needs to be included.

The FIN receives data from the states as a flat file – delimited (preferred) or column matched.

In the follow-up, Mike Cahall noted that the GSMFSC system design is similar to ACCSP design.

In response to a question, Mike said that all of the issues listed in the presentation have been resolved and a set of standards is in place.

In response to a question regarding how the data are released, Mike said that there is no restriction on how the data are used and who use it. However, FIN confidentiality statement says that once the user receives the data, they cannot pass it on to someone else. They can use the data however they want (they can even destroy it after it is used), but they cannot pass it on. In addition, our confidentiality forms says, "you will do this…, you will do that" and you sign.

Mike noted that they use Unix shell scripts and C programming and that they use checking and loading. They use a shell script that asks for state, year and month. It lists files and does error checking. However, if there are missing elements they contact the state to modify their data. We do not modify the data. We also need to put in place a way to extract questionable data, such as, a 6-inch fish that weighs 300 pounds.

The GSFMC FIN coverage overlaps with ACCSP in Florida; they both have all of the Florida data. They cross check their tables with ACCSP to see that they each have the same thing in their tables. What Mike does not have he gets from Mike Cahall; what Mike Cahall does not have he gets from Mike Sestak.

Mike noted that they use Oracle Enterprise Manager for metadata.

PSG Policies and Responsibilities
Roland Tanner, NERO
(See presentation on FIS website)

Professional specialty groups, representing federal and local agency and fisheries information networks, need to reduce duplication of effort.

In discussing PSG duties and responsibilities, Roland noted that there is a difference between a team and a group:

- A team is established to address a specific need or purpose.
- A team is short-term lasting 1-6 months
- A group is long-term
- A group is committed to the cause and proactive (in for the long hull)

Roland spoke to the PSG Structure and Interactions diagram, noting that every PSG is related to each other. Each group will define objectives to meet the PSG goals. Tina Chang noted that the System Design and Integration PSG oversees the other groups and implement policies & guidance.

Gail Smith observed that people in the various groups need to find out what are the existing systems and the intent of the data collection. It is difficult to integrate older systems but easier to create new ones. However, this compromises data collection that has been in place for years.

Professional Specialty Groups (PSG)
Dr. R. Frank Martin, Consultant, Indian Health Service
(See presentation on FIS website)

Dr. Frank Martin, consultant and former employee, Indian Health Service, described some background on that agency's use of professional specialty groups to improve the information systems that help to provide health care delivery to American Indians and Alaskans on reservations. The IHS PSGs were established in 1985 and provide recommendations and assistance on clinical and administrative software applications.

The IHS PSGs are more heavily business staff with information technology support. The PSGs develop requirements with a view to making sure that the system will work for the user. Dr. Martin noted that you need facility manager support for PSGs. He also suggested that you have to be willing to compromise, citing a case where he wanted to use one index, but they ultimately went with another, which was fine, though not his first choice. The RPMS (Resource Patient Management System) is the overall core system.

Dr. Martin received several follow-up questions. Asked about the typical duration of a project from kick-off to improvement, Dr. Martin mentioned that the electronic health report took about 1 to 1.5 years. Regarding logistics, he said they have monthly

conference calls and send meeting materials before the schedule conference. Also, we will have yearly meetings face-to-face.

When asked about buy-in from the top, Dr. Martin noted that in 1985, Dr. McIntire, who was the head of the program at that time, saw the need. They wanted to get good data. So they went to Congress to present the need for good reporting and information. They also went to other groups such as the American Medical Association who could lobby Congress.

They determine PSG groups by their problems and issues. They based it on all the disciplines of the health services. The Resource Patient Management System was developed in 1983. Health is patient care driven. The core of the patient care system is interfacing with dental, pharmacy, etc. There was discussion about what's the core that holds fisheries together? Health professionals had to work with IT people and improve ways to get funding.

Roland Tanner, a former IHS employee, observed that there is a disjoint between the programs and regions (need to come together). Who else to engage? He suggested a blend of programmers, end users, invited parties, systems analysts, tribal representatives, West Coast FINs, West PACFins, AKFin, enforcement, Coast Guard and rest of the Regional Information Technology Coordinators (RITCs).

When asked about conflict resolution, Dr. Martin said that some of it was easier than others – for instance, the property management system his wife worked on for 2 years. There is a high risk in making mistakes in property management, what to surplus, where is it, etc.

When asked about PSG organizational reporting, Dr. Martin said that the PSGs report to the ISAC (Information System Advisory Council), composed of area directors, tribal directors and people from field. The group reports to ISAC if there is a problem. They also report to ISAC on any IT issues. ISAC is responsible for reporting to Congress.

None of the PSGs have faced any legal issues.

The ground rules and processes for the PSGs were formalized in 1985, Chapter 15 in Health Service Manual, which everyone in the PSG has to see rules and regulations.

When a PSG has finished its major objectives, it is sitting in reserves so that if issues come up, the PSG is reactivated. Another PSG may need to be developed if it does not already exist.

Asked if the PSG concept was formed by the Indian Health Service, Roland noted that it was mandated by the Veteran's Administration to modulize the system and needs.

When asked about the framework for tracking PSG progress, Dr. Martin noted that

every two years, a PSG has a meeting to report to the ISAC. He added that because some PSGs make better progress, there is some member crossover.

Asked about the maximum or optimum size, Dr. Martin said that their PSGs are limited to a maximum of 14, according to their rules. Asked, given the size, whether it is hard to get everyone to agree, Dr. Martin said that 14 is a logical size and that you need to achieve consensus.

Roland Tanner responded to a question about the difference between this PSG vs. Team vs. Council: as I mentioned earlier in my presentation, a team is short term and addresses a certain need. A PSG is part of a framework that is part of the solution. They are proactive and part of the business. They have longevity.

The questioner summed it up: In other words, being in a PSG is a serious commitment – a multi-year commitment you can't dance off. Roland noted that PSG members could rotate. If the members get burnt out, they can go to another PSG to get new exposure.

Asked how to determine stakeholder members, Dr. Martin said they are the logical users of the application. Roland Tanner noted that there is a disjoint in the business process in NMFS. Health service is more joint by health educators, dentists and nurses. They know who the end users are. Tina Chang said that our users are the stakeholders for FIS, which are the state, fishermen, etc.

Asked if there are any members on the PSG who are not in the program, because of 14-member limit, Dr. Martin said that they take on representatives from each area whether end user, tribal interest or other interest. The follow-up question was posed, if 30 people want to be on the group, how do you turn them away?

You work with the CIO and know people with expertise. Politics play a part. Must be effective enough to represent the area. For example, the Dental Chief Medical Officer (CMO) may want to be on a hot topic with the Dental PSG.

Dr. Martin was asked if, because of the mixture of professions, it is a problem getting people speaking the same language and prioritizing. He said that sticking with priorities is not a problem; speaking the same language is. The chairperson controls it – especially diverse groups.

A Discussion and Demonstration of the Standard Atlantic Fisheries Information System (SAFIS)
Mike Cahall and Barry Brasseaux
(See presentation on FIS website)

Mike Cahall gave an overview of SAFIS, a web-based approach which facilitates real-time dealer logbook reporting, before Barry Brasseaux demonstrated it. All states from Virginia to Maine put in for ACCSP to build a system for them. This system will collect state and federal dealer information.

System requires changing as the system expands. Its flexible design features include:

- Meet ACCSP, state and NMFS data structure
- Customizable Data Entry Validation
- Agency interfaces can be customized
- Customize Auditing
- Allow auditing based on agencies requirements
- Track multi-agency permits licenses
    - Single id for person/boat
    - Does not make a difference where it lands

The Entity-Relationship (ER) Diagram includes the following tables:

- Dealer Report Table
    - Fisherman ID (unique identifier)
    - Local Participant License
- Vessel Table
    - Historical vessel information which does not change such as, date when boat built, size of boat, etc.
- Permit Table
    - Permit/License data
- Participants Table
    - Information about participant such as, birth date, sex, age, etc.
- Vessel Description Table
    - Data about the vessel that can change such as, color, etc.
- Vessel Permit Table
    - NMFS data

Demonstration of Application of Rhode Island States Dealer
Presented by Barry Brasseaux

Barry showed a map of vessel names and fishermen and showed application functionality:

- File upload of an Excel spreadsheet
- Creation of reports
- Set up accounts
- Quota monitor by species and gear code
- Unlock records
- Update message of the day
- View license data
- Update species selection tree
- Default part codes
- Landings
- Audit report gives full list of dealers

Connecticut is the next state that will use the system.

Asked what technology was used to create the form, Barry said that Java was used to grab Excel spreadsheet, and parse in Oracle table. The table is accessed and the data is displayed in Oracle forms as 3rd party business object. Anytime before the 14 days, the record can be updated in the system. After 14 days, the record is locked. You can only view the record.

Asked about total activity to date, Barry said the current system status is that Rhode Island has top 10 dealers using the system. It is deployed in Rhode Island and Maryland. However, they are working on QA and QC for data entry and auditing to run in background. Data replication is used to get to people who need it. It will be deployed across all the Northeast region by May 1, 2004. We are continuing to work on a web-based file upload that is currently a macro and high-speed data connection. SAFIS goal is to meet the May 1, 2004 E-Repository deadline. Massachusetts wants to deploy the system itself and will have its own future version; we will be working with them to ensure it is compatible with our system. We are adding biological sampling, vessel trip reporting, integrated dealer reports and HMS.

Asked about southern states, Barry said that Georgia, Florida and North Carolina have approached them about the system.

Asked about tracking edits (who and reason), Mike Cahall said that there is a mix of records overlaying responsibilities – collaborative mechanism coordinated with state person. System flags if someone is looking at data that is not their own.

PSG Breakout Sessions General Rules and Agenda
Presented by Mary Holland and Tina Chang

Mary Holland presented the PSG breakout sessions agenda for Thursday afternoon and Friday morning. The general agenda was: PSG member introductions, selecting recorders and presenters, defining PSG objectives to meet FIS goals, and focusing on completing elements of a PSG worksheet (*handout in meeting binders and available electronically to PSGs*), especially objectives, success criteria, relative priority and assigning action items. She also asked that they spend some time discussing PSG tactics or logistics, such as meeting frequency and tracking progress. She noted that they would reassemble as a large group just before closing Thursday afternoon. And PSGs would present their progress on objectives at approximately 11:00 a.m. on Friday, during the last hour of the meeting.

She opened the floor for discussion.

Asked about whether the group could meet some place other than the east coast, because the time difference takes a while to adjust to, Tina Chang said yes.

Asked about a list of PSG duties and responsibilities, Mary called the group's attention to the draft FIS/PSG Policy Paper dated November 14th, 2003, which had been handed out

the morning of the 19th. (*Note: latest version is posted on the FIS website*) She suggested that groups rely on that document as a reference.

Asked whether the collection of economic information is still an issue with us, Dave Van Voorhees said yes; we will start an Economic and Socioeconomic PSG group in the next 6-8 months. The current groups are just a start as we move forward. Rita Curtis added that she would like to start the Economic and Socioeconomic PSG this year.

Susan Molina, SEFSC, noted a permit challenge, because the Southeast is redesigning their permit system. She said that they would meet the following week to determine what direction they are going. She said it is an opportunity to use Southeast as a case study – an opportunity to use the FIS methodology imposed on us – PSG and FIN requires something consistent. Barry Brasseaux, ACCSP, said that the Permits PSG needs someone from the Southeast region, but no one is listed. Carolyn Sramek, SERO, volunteered to be a region representative on the Permits PSG.

Jan Pappas, PIFSC, said that coordination is needed on the species program. It is done differently in every office – need to agree on how we use species. Steve Koplin, ST, reported that they have been working with the National Oceanographic Data Center (NODC) to use Integrated Taxonomic Information System (ITIS). ITIS serial #s are assigned to species. NODC coded system intelligence. Hawaii is originally ITIS-based. There is a proposal to provide additional animals in the system. Forty animals were sent to Smithsonian to make sure they are in their system and make standard. ITIS is on Shark with complex tables. Asked about species group reporting, Steve said that it is only pure scientific reporting.

Mary Holland gave a quick reminder of the ground rules and highlighted the most important one – the definition of consensus: "I can live with that and support it" – It does not necessarily mean, "I think this is the best solution."

The meeting broke for a brief opportunity for PSGs to meet and lunch before reassembling in breakout sessions in the afternoon.

PSGs took notes during their meetings; watch the FIS website for more information about the breakout group sessions.

At the end of Thursday, the large group reassembled. Mary Holland briefly summarized issues and ideas that she had heard as she sat in for portions of the four PSG meetings.

Issues:

- Recruiting – some groups need additional people or skills and may need assistance.
- Member confirmation – not all participating in breakout sessions plan to be long-term members of the PSG.
- The correspondence between FIS goals and PSG objectives – doesn't have to be one to one.

Ideas:

- Goal Columns – the System Design and Integration PSG added a column after each objective to list the number(s) of the relevant FIS goal(s).
- Survey – most PSGs are planning some sort of baseline survey to gather information.
- Coordinate – PSGs may want to coordinate some of their survey efforts.
- Define Terms – Some PSGs are developing (or adopting) glossaries so that the terms they use are clear.

The meeting was adjourned until 8:30 a.m. Friday morning.

Fisheries Information Systems Meeting Notes
Friday, November 21, 2003

8:30 a.m. – 11:00 a.m.: PSG Breakout Sessions

The PSGs met from 8:30 to 11:00 a.m. in the four established groups – FIS System Design and Integration, Permits & Unique Identification, Landings & Logbook Reconciliation, and Electronic Reporting – to continue identifying objectives and tactics. The participants reconvened as a large group to hear presentations from each PSG regarding their progress in defining objectives and to conclude the meeting.

Division of Fisheries Statistics and Economics

Before exchanging PSG presentations, Dave Van Voorhees, Director of the Division of Fisheries Statistics and Economics, Office of Science and Technology, briefly outlined the structure of the division where FIS project management resides. The division has 5 key teams:

- Commercial Statistics – Steve Koplin
- Recreational Statistics – Dave
- Information Technology – Tina Chang (Acting for Karen Foster Brown)
- Economics and Social Sciences - Rita Curtis
- Observer Data Collection – Vickie Cornish

A reorganization is in process that will establish additional divisions within this group. In addition, there are plans to hire an FIS co-project manager, who would bring a business background to complement Tina's information technology and project management strengths.

PSG Session Summaries

Designated or volunteer members from each PSG presented progress to date. Additional detail will be available through PSG meeting notes and objectives spreadsheets, as they are completed and shared.

Data Reconciliation PSG – Presented by John Poffenburger

What they are and will do:

- Compare/reconcile similar/same data elements collected by different sources

Goal:

- Goal is not to compare/reconcile but put guidelines/standards that other regions come up with and put some generic standards that allow people to be more conceptive

Able to do:

1. Count the number of unique vessel i.d.s
2. Number of trips by vessel id, gear and location
3. Reconcile
    - Number of days
    - Complete census

Objectives:

1. Identify situations where "same" data are collected by different sources and reconcile
2. Derive data elements that are called across region and commission, etc.
3. Business rules that define "sameness"/"what constitutes a match?"
4. Define terms used by separate regions, FINs, etc.
    a. What is a trip? Provide a definition that everyone understands so we can be talking the same way. Make this part of the metadata.
5. Issues that affects the likelihood of reconciliation (or levels)
6. Define types of reconciliation (that can be identified as part of the business rules)
    a. Extract Match
    b. 4 of 5 data elements match
7. Application requirements and options for reconciliation
    a. Where application occurs
    b. Where it works or don't work
    c. Everyone knows what is available

Process:

Step 1 – Add members/contacts for all regions, FINs, etc. are correct

Step 2 – Fact Finding – Develop Survey

- Survey completed by end of February 2004
- Respond by March 2004

Electronic Reporting PSG – Presented by Doug Turnbull

Purpose:

Consolidation of all means in which a dealer can act as "a place, clearinghouse, or a funnel" for identifying best solutions in the context of how systems are operating.

Electronic reporting is 25% of technology and 75% business process change.

Projects & Schedules:

- There are many electronic reporting tools. Doug will contact Mike Sestak about a survey that has been done and modify it and put on the web.
- Develop a catalog of electronic reporting systems to put on the web with links to their sites.
- Provide demos of these systems
- Draft survey will be available December 5th, 2003
- First conference call will be on December 15th, 2003
- Regular schedule conferences will be the 2nd Thursday of each month

Permits PSG – Presented by Jessica Gharrett

Schedule:

- First conference call will be on December 11th, 2003.
- Meet twice a year "face-to-face"

Objectives:
(Came up with 12 objectives. Each objective deals with collecting information. These are portals to permit issuing.)

1. List of permit programs
2. Provide business analysis
3. Catalog of permit data elements
4. Develop list of General Counsel opinions
5. List of vessels banned or "black listed"
6. Completion of EMIS
   - (Environmental Management Information System)
7. Develop contacts with outside agencies
   - (Help develop MOUs)
8. Expand use of National Permits Database
   - (Doug Howard has on Shark. Expand use of it. He built queries and links to other databases.)
9. FIS portal
   - (Information on permits meetings, etc.)
10. Develop standards rationales
    - (Re: PRAs – Rick Roberts will retire; Will PRA clearance process be a function moved to the CIO office?)
11. Develop glossary of terms
12. Design structure of national registry

Systems Design and Integration PSG – Presented by Susan Molina

Objectives:

(12 Objectives)

1. Assist to get things on the website; determine if web site will be intranet, internet or extranet accessible; and post catalogs, common practices, etc. Coordinate with other groups to work on and fill in the missing gaps.
2. List Sustainable Fisheries Act (SFA) goals and objectives as well as conceptual design
3. Draft policy and guidelines for specific business processes (get "buy in")
4. Master Plan (includes implementation of project plan)
5. Inventory of existing data holdings (online)
6. Data quality act compliance
7. Formalize business practices
8. Oversee coordination of PSG and continuation of FIS activities
9. Setting FIS priorities – Deliverable and management approvals
10. Identify national FIS "core" data (project needs scope)
11. Identify data quality issues (data elements, how collected, QA, etc.)
12. Metadata repository – ID system and data elements; accessible for everyone to find

Comments

John Hoey offered some final observations, including suggesting that FIS team provide Hogarth a newsletter of FIS activities. He said that the national level must be built from the regional level. It must protect confidentiality. FIS has subregional goals to enhance systems to drill deeper. Get regional "buy in" to obtain operation-by-operation data to provide to Senate. Make investment for everyone in region to get better data for constituents.

FIS Meeting Conclusion – *Presented by Tina Chang*
(See Presentation on FIS website)

Tina Chang presented concluding remarks, emphasizing the vision and goals. She noted that Dr. Hogarth's memo lists problems and that we need to find solutions to these problems. For the FIS Goals, we need to define FIS objectives. In concluding, she urged the group to consider that we are all leaders; we need to show progress; and we need to make a lot of noise. She thanked everyone for their participation.

Jim Sargent, Office of the CIO, offered some final observations regarding the critical success factors for FIS:

1. **Funding**: FIS has money. Congress funded $2.6 million/year. It is a blessing and a curse. People are looking at it due to budget challenges. Develop key ways to hold on to the money.
    1. **Project Champions:** Tina Chang and Dave Van Voorhees are champions; But also secure Senior Executive level sponsorship, i.e., Mike Sissenwine.
    2. **Ultimate success factors:**

    - Spending the time
    - Telling your bosses about it
    - Your bosses telling your deputy directors, regional administrators, and science center directors on the F call (senior Fisheries managers)
    - On the F call for this week, no one spoke on FIS – need to make it a constant on the agenda

2. Customers:

- Who are they?
- What do they want?

3. Articulate quantifiable factors

- Cost-benefit analysis
- Return on investment

4. Articulate a plan

- Where are you now?
- Where do you want to go?

Make FIS real. Have the support of the Office of the CIO.